
Gender Assessment

FP178: Desert to Power G5 Sahel Facility

Burkina Faso, Chad, Mali, Mauritania, and Niger | AfDB | B.30/02/Add.10

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Annex 8 – Gender Assessment

The Multinational – SOLAR-POWERED REGIONAL ECONOMIC DEVELOPMENT - ADF15 Desert to Power RPG PROGRAM – PHASE 1 covers Burkina Faso, Chad, Mali, Mauritania, Niger. This program includes 3 main components: (i) the first component will focus on grid investments to de-risk solar IPPs and pave the way for the uptake of a regional solar market. This component will include financial support to grid ancillary infrastructure for solar integration, and storage for grid stability; (ii) a second component will provide concessional finance to solar IPPs as well as partial risk guarantees (PRGs) to cover investors against the risk of the government (or the government-owned utility) failing to perform under the Power Purchase Agreement (PPA) obligations with respect to the underlying program; and (iii) the third component focuses on technical assistance which includes: the development of capacity of local stakeholders to manage larger shares of variable renewable energy and improve the enabling environment for IPPs to attract private sector investments in solar energy across the G5 Sahel region.

The outcomes of the proposed technical assistance activities under Phase 1 of the Desert to Power Financing Facility are the creation of a clear and reliable environment for private sector solar project financing and the development of adequate capacity at national institutions in the G5 Sahel countries to ensure the long-term sustainability of their national renewable energy sectors. Through these outcomes, the Facility will create attractive and viable opportunities for solar PV in the G5 countries, improve energy access and security for women and men, and directly benefit 3.5 million people (out of which 1.75 million are women). The expected indirect beneficiaries are estimated at 700,000 women and men.

The aim of the gender assessment is to indicate how to focus on the different components of the overall logical framework for having the greater impact in terms of reducing gender inequalities in the areas of the program. The analysis will also take into consideration the very particular Covid-19 period to fine-tune the ways to address the gender gaps.

COVID-19 and gender equality within the ADF15 Desert to Power RPG program

The livelihoods of vulnerable rural households in fragile environments such as Sahel and West African countries have been severely affected by the unprecedented circumstances associated with the COVID-19 pandemic. Chronic food insecurity threatens the livelihoods of the most vulnerable in the Sahel, including women as they constitute the majority of the Sahelian population, a situation which is explained by the high migration of men from the region. The main challenges for this area and for the West Africa region are energy access for households and health centers (for keeping the vaccines cool), financial needs including the ability to access formal financial services and informal savings groups that are suspended due to social distancing and heightened economic difficulties during a pandemic. The health crisis has also led to a reduction or a halt in remittances from migrants to their families, disruptions for grain banks and limited access to credit from local merchants. According to IEA 2020 report, COVID-19 reversed the progress to achieve universal access to affordable, reliable, and modern energy, increasing women and youth vulnerability to ethnic conflict, family violence, insecurity and poverty.

Furthermore, women in vulnerable households are disproportionately affected by the pandemic (Koning, Anderson and Bin-Human 2020). Indeed, these women are prone to additional stress in this period of pandemic because they find themselves alone and separated from their usual social institutions such as schools and savings groups. Children are at home and need care and food, which women must provide alone. Caring for the children and the home was difficult before the pandemic, but now without the help of family members or neighbours in the village, it is even more difficult. Access to social assistance is very limited, if not impossible, because everyone faces the same restrictions.

Assessment methodology

The gender assessment of this program is based on the country strategic papers, country gender profiles, the database of the National Bureau of Statistics, of the main Multilateral Development Banks and UN agencies. All this knowledge is compiled below to identify the gender gaps to address in the solar energy sector within the Sahel and West African countries. The compilation of these desktop studies are based on stakeholders consultations. They contain the needed data to elaborate a gender action plan at the program level and give the guidelines for the further national gender action plans. Gender inclusive consultations will be led by the gender expert of each PIU at the beginning of the implementation phase to elaborate a specific national gender action plan at the country-level based on the gender action plan described at the program level in annex. These national gender action plans will include the specific timelines appropriate to the ongoing country context. The five gender assessments and gender action plans will be undertaken at the inception phase, before the implementation of this program. As the AE, the AfDB will work with the government as they prepare the national gender action plans and ensure that they meet the GCF and AfDB requirements. Then, the AE will review, clear and endorse the national gender action plans. The AE will share the final national level gender action plans with the GCF Secretariat. The AE will keep the GCF Secretariat informed of any updates or revisions to the program-level gender action plan and share an updated version if applicable.

Regarding the nature of this Program, it has been decided to focus the budget for gender sub-activities under the component 3 to have a gender integration in cross-cutting sub-sections through Technical Assistance and Capacity Building lenses. Thus the strategy is to focus on strengthening and building capacities at different levels for different kind of stakeholders, as well as for concentrating the budget allocation. The sub-activities requesting specific attention, specific budget allocation, implementation, and M&E are gathered in the gender action plan under the component 3. However, gender is mainstreamed in the whole program as visible in the funding request main document.

Country-level gender assessment

Key data on gender inequality

The highest gender inequality index (GII) is in Chad (0.710), and the lowest is in Burkina (0.594; Table 1). A study on the gender gap conducted by the World Economic Forum in 2020 found different results with Mauritania ranking 11th far ahead of Burkina Faso (28), Mali (30) and Chad (33).

Table 1: Overview of gender development index, gender inequality index, regional and global gender gap rankings

Country	Gender Development Index (GDI) ¹	Gender Inequality Index (GII)		Regional Gender Gap ranking ²	Global Gender Gap ranking
		2005	2019		
Burkina Faso	0,867	0,641	0,594	28	129
Chad	0,764	0,714 (2015)	0,710	33	147
Mali	0,821	0,706	0,671	30	139
Mauritania	0,864	0,663 (2010)	0,634	11	141
Niger	0,724	0,703	0,642	N/A	N/A

Even if the Sahel and West African countries gender data reveal a high inequality between both sexes in many fields, they all improved their situation in recent years. The following sub-sections will provide more detailed information on key areas related to gender inequality in the program's target countries.

Poverty and income

¹ [Gender Development Index \(GDI\) | Human Development Reports \(undp.org\)](https://data.undp.org/)

² [WEF GGGR 2020.pdf \(weforum.org\)](https://www.weforum.org/reports/global-gender-gap-report-2020/)

Five of the 20 worst places to be born a girl are Sahelian countries. Indeed, gender inequality is a strong challenge in the program's target countries. In terms of the human development index, Mauritania has the highest average HDI ranking of the program's target countries. When focusing on the HDI disaggregated by gender, women have a lower HDI than men in all of the program countries, with a substantial gap between females and males in Chad and Niger.

The World Bank states that around 40%³ of the G5 Sahel populations live on less than US\$ 1.90 a day, which gives us an estimation of the number of poor-headed households targeted in the program.

Table 2: Human development index (HDI) disaggregated by gender⁴, FHHS and population living below national income poverty line

Country	Human Development Index (HDI) 2019		Female headed households ⁵	Population living below income poverty line, national poverty line (%)
	Female	Male	Female headship	
Burkina Faso	0,418	0,482	10%	40.1%
Chad	0,342	0,448	22%	46.7%
Mali	0,388	0,473	9%	41.1%
Mauritania	0,500	0,579	36%	31%
Niger	0,321	0,443	16%	44.5%

Female headship data are very old and does not take into account the conflicts of recent years and the migrations that this has engendered, from men and women sides. Migrations are part of the livelihood strategies in the rural places of the Sahel and West African countries. More men than women migrate toward urban cities or other countries and women and many women have to manage the home on their own. Conflicts broke the precarious and fragile balance of these migrations as men send less money and when they are able to send it, women cannot necessarily go and get it back. On the other hand, conflicts force men to return home prematurely, and food is no longer enough for all members. The data on % of population living below the national income poverty line are eloquent with more than 40% of people concerned in 6 out of the 7 program's countries. Knowing that the program's countries have a sharp urban/rural divide, we can assume that the % of population living in rural places below the national income poverty line should be higher.

Legal framework and gender promotion policy

Country	CEDAW	African Charter o Human and People's Rights (Maputo Protocol)	Gender Equality recognized in the National Constitution	National Gender Policy (NGP)	Ministry of Gender, Advancement of Women and the Family	Recognition of and struggling against Gender-Based Violence
Burkina Faso	0,867	X	X	X	X	X
Chad	0,764		X	X	X	X
Mali	0,821	X	X	X	X	X
Mauritania	0,864	X	X	X	X	X
Niger	0,724		X	X	X	X

³ [Sahel Adaptive Social Protection Program \(ASPP\) \(worldbank.org\)](https://www.worldbank.org/)

⁴ [Human Development Reports \(undp.org\)](https://www.undp.org/)

⁵ [https://data.worldbank.org/indicator/SP.HOU.FEMA.ZS?](https://data.worldbank.org/indicator/SP.HOU.FEMA.ZS?locations=SS)

Despite their enormous potential, the G5 Sahel countries face socio-economic challenges that could be meaningfully addressed if women and men had access to the same opportunities. On the road to economic empowerment, women are hindered by discriminatory traditions and gender stereotypes. For example, while they provide 80% of the agricultural labour force in the Sahel and play an essential role in household nutrition, they have less access than men to the factors of production (land, inputs, equipment, digital tools, training, information, credit, etc.). In a security context marked by violent extremism and armed conflict, women and girls experience the double impact of an unstable security context and social discrimination. Yet they are excluded from the peace and security process in the Sahel.

BURKINA

On the international front, Burkina Faso has ratified most of the legal instruments recognizing the equal rights and duties for women and men and prohibiting all forms of discrimination against women. The main challenges still to be tackled relate to the need to ensure wide dissemination/popularization of these instruments and to the need to align national legislation with the ratified instruments. Nationally, there is a formal gender equality framework. The Constitution of 2 June 1991, revised most recently in November 2015, guarantees gender equality. It recognizes gender promotion as a factor for achieving equal rights between men and women. Its Section 1 states that all Burkinabe are born free and equal. The country has also passed laws that essentially grant men and women the same rights to access services and resources. The provisions of the Labour Code prohibit and penalize discrimination in employment and occupation, including gender-based discrimination (Sections 4 and 38). The law enshrines equal pay for jobs of equal level (Section 182) and provides for working conditions adapted to the motherhood status of women. It prohibits sexual harassment at the workplace (Section 37). The new law on violence against women provides for penalties for sexual harassment in general.

The legal framework limits gender equality as evidenced, among others, by the existence of legal instruments that still discriminate against women, the existence of legal loopholes regarding violence against women, the enforcement of customary law some of whose aspects, such as widowhood rites, forced or early unions, genital mutilation and discriminatory access to land, are often disadvantageous to women. While significant progress has been made in terms of de jure equality, de facto equality remains a challenge, as the practice on the ground is still faced with numerous legal obstacles. Finally, political commitments for the promotion of gender and women's empowerment were announced in Burkina Faso's major national policies and reforms.

CHAD

Article 14 of the Chadian Constitution guarantees the equality of all before the law "distinction as to origin, race, sex, religion, political opinion or social position". The same article states that the State has the duty to ensure "the elimination of all forms of discrimination against women and the protection of their rights in all areas of private and public life". The Civil Code establishes the man as head of the household (article 213); among its prerogatives, the latter decides on the place of family residence and women are obliged to follow it (article 215). While women have the right to open a bank account in the same way as men (article 222), they do not have the same rights with regard to the exercise of a salaried activity (article 223). Following the signing of the CEDAW, the government undertook a new Code of Persons and the Family, which would be less discriminatory against women but which has not been followed up (National Gender Policy, 2018). The Civil Code granted women and men equal land rights, but in practice customary law prevailed. The Constitution recognizes customary law as a valid source of law, provided that they are not contrary to public order and do not advocate inequalities between citizens (article 156). In some regions, customary law governs the matrimonial regime, property and rules for the transfer of inheritance and accords a higher status to men and unfavorable to women, particularly with regard to access to land and inheritance.

The institutional responsibilities on gender are: the ministry in charge of interventions in the field of gender equality and equity and the advancement of women. Within this Ministry, the "Directorate for

the Advancement of Women and Gender Integration" (DPFIG) is responsible for coordinating these issues. Two structures are created to ensure the implementation of National Gender Policy (NGP): (1) a State/Partners Steering Committee and (2) an NGP Steering Committee. Finally, the Observatory for Gender Equality and Promotion is the body for consultation between different actors, which participates in the monitoring of the implementation and the preparation of the implementation reports of NGP. If the Chad Country Strategic Plan for 2019-2023 considers the gender thematic, it remains structural development challenges, high prevalence of food insecurity and malnutrition, gender inequalities, vulnerability to climate and weather-related crises and displacements driven by conflicts and insecurity in neighbouring countries are hampering the Government's development efforts and putting pressure on already vulnerable households and communities.

MALI

The Ministry for the Advancement of Women, Children and the Family (MPFEF) is the first state institution responsible for the establishment and monitoring of gender policy in Mali. Other institutions will need to be put in place to guide, coordinate and monitor the National Gender Policy such as the Higher Council of Gender chaired by the Prime Minister, the Permanent Secretariat and gender institutionalization committees in the ten targeted sectoral ministries. These ministries will include the Ministry of the Economy and Finance and the Ministry of Labour, Civil Service and State Reform.

The limits of the institutional framework on gender equality are mainly found in: (i) the lack of operationality of institutional mechanisms due to the still recent adoption of the Gender Policy and its action plan, (ii) in the limited impact of association activities and women's movements and (iii) in the relative influence of the WG GED for taking into account effective gender dimension in successive CSCRPs.

A national strategy for Planning and Gender Sensitive Budgeting (PBSG) was also launched the establishment of a special fund to ensure the effective operationalization of NGP. At the sectoral level, we can cite the gender equality policy of the Ministry of Justice and plans of shares specific, such as the action plan to combat trafficking in women and girls, and fight against Violence against Women and Girls. While the political framework creates the conditions for gender equality, it is constrained by its lack of operationalization. Most sectoral policies are not always followed by concrete actions, nor translated into operational mechanisms and sufficient allocated resources. At the legal level, several international and regional instruments have been ratified by Mali, recognizing women and men as equal rights and duties and prohibiting any discrimination against women.

The limits of the legal framework for gender equity concern the poor harmonization of national legislation with international instruments, certain legal loopholes in positive law (violence against women), and discrimination against women. In addition, customary law, often unfavorable to women, is applied to the detriment of the law, especially in rural areas, in particular with regard to the succession on rural land.

MAURITANIA

Despite the persistence of certain socio-cultural considerations, Mauritania expresses, through its legal arsenal, a clear and gradual political will to eradicate the disparities to which women are victims. However, in many countries that have Islam as their religion, customary interpretation dominates. At the national level, the Mauritanian Constitution of July 20, 1991, considers women as full citizens and recognizes equality between men and women. The constitutional principle of equality of citizens before the law is taken up by all legislative texts (labor, trade, investment, land ownership, etc.). The Staff Regulations Code, adopted in 2001, is the heart of the national legal system founded on the principles of Muslim law which constitute the source of legislation in Mauritania. It governs questions related to the private sphere (family, marriage, divorce, guardianship of children, inheritance, etc.). It is a compendium of all the provisions of the Maliki rite of Sharia relating to the personal status.

Despite its progressive aspect and its advances, it remains a revealing tool of the powerful ideological and cultural patriarchal patterns which perpetuate the idea that women are an eternal one. Almost all legal texts dealing with social issues and economic issues relating to women continue to place them in a position of obvious vulnerability and detrimental to their development. Criminal legislation is characterized by the absence of specific provisions relating to violence against women and any criminalization of discrimination against them. To the limitation of several legal texts relating to the promotion and protection of women's rights, factors are added which make the effectiveness of those existing in their favor.

For about two decades, Mauritania has been striving to adopt policies, strategies, programs and action plans that take into account the gender perspective in order to promote equity between men and women and create favorable conditions to flourishing of the latter at all levels (political, economic and social). As such, we can cite between others: the National Strategy for the Advancement of Women, the National Action Plan for Rural Women, the National Strategy for the Institutionalization of Gender, the National Strategy for the Abandonment of FGM, and the National Strategy for Micro Finance and Micro Enterprise which is a privileged tool for the economic advancement of women.

Despite a demonstrated political will, the status of women remains a concern in Mauritania because of the prevailing socio-cultural factors. Indeed, these factors negatively influencing the chances of education, therefore limit the capacity of Mauritanian women to participate fully and visibly in the socio-economic life of the country and in the fight against poverty. In Mauritania, significant efforts have been made in favor of the transversal integration of gender and the consideration of human rights in policies sectoral or national development. These efforts materialized at the institutional level by the creation of structures, at the governmental level and at the level of civil society, to operationalize this will.

NIGER

Niger has undertaken political reforms, institutional and legal systems aimed at promoting gender equality and ensuring growth inclusive economy. However, some of the legal and regulatory provisions established by the government are still applied insufficient or partial. Non-ratification of the African Charter on Human Rights and of peoples on women's rights and coexistence of three sources of law (customary, religious and positive) are among other things major legislative challenges relating to the promotion of kind. This section analyzes the policy framework in link with the gender promotion strategy as well that the institutional and legal environment of gender promotion. At the regional level, Niger has not ratified the Maputo Protocol. However, the country in at the sub-regional level, Niger has ratified several legal instruments such as the African Charter rights and well-being of children (ACRWC). At the national level, the constitution of Niger adopted on November 25, 2010 guarantees equality of the kind and ensures to all equality before the law without distinction of sex, of social, racial, ethnic or religious origin. Article 5 of the labor code expressly prohibits employers from discriminatory practices in recruitment, conduct and distribution of work, training professional, advancement, promotion, remuneration, the granting of social benefits, recruitment and remuneration of female workers based on age, gender or disability status. However, discrimination against women still exist in the application of these legal dispositions reinforced by the preeminence effective customary law over modern law.

The government's political commitments of Niger to reduce gender inequalities have been announced in major policies and reforms. This concerns in particular i) the Strategy of Sustainable Development and Inclusive Growth; ii) of the Development Plan economic and social 2017-2021; iii) of the initiative Nigeriens feed Nigeriens; iv) the National Gender Policy; v) of the National Empowerment Strategy women's economy in Niger ; vi) of the Strategy national prevention and response to GBV; vii) the Gender Strategy of the Court of Auditors Niger under development and viii) integration gender in development plans communities and the integration of gender in curricula of schools and training institutes; and ix) the gender and Islam strategy. However, taking gender into account in development strategy documents remain to improve. The framework development guide sector strategies currently

being revised for gender mainstreaming in policies, plans and sector strategies will improve this situation.

Energy and renewable energy

Women have a significant role to play in the power sector — from policy makers and executives of private sector partners, to utility managers and employees of power plants and distribution systems, to renewable energy entrepreneurs and customers of electricity services. Their contributions are broad and impactful. As indicated by USAID: “A sector that fails to meet the needs or capitalize on the talents of half the population will not be sustainable.” Indeed, gender mainstreaming within the energy sector not only creates immediate opportunities for women, but it also strengthens a sector that supports better health care, education, and entrepreneurial opportunities for women, and further advances national development goals.

According to a McKinsey report, women represent 20% of employees in the African power sector and less than 10% of engineers. The report also mentions that African companies in general whose boards of directors are made up of at least a quarter of women have earnings before interest and taxes 20% higher than the industry average. Some of the reasons highlighted in the report for why companies with a greater number of women in leadership positions perform better include: enhanced risk management; openness to new ideas and ways of doing things; improved collaboration and cooperation between stakeholders; and stronger ethics and consistency in making fair decisions. Companies with greater gender diversity are also better equipped to understand the needs of female customers – who directly influence 70-80% of global spending, notes the report.

Table 6: Global, urban and rural electricity access, and access to clean fuels and technologies for cooking

Country	Access to electricity (% of population)	Access to electricity, urban (% of urban population)	Access to electricity, rural (% of rural population)	Access to clean fuels and technologies for cooking (% of population)
Burkina Faso	19.2%	62,3%	4.7%	9%
Chad	8.8%	41,8%	2.7%	1%
Mali	35.1%	85,6%	25.4%	1%
Mauritania	44.5%	82,4%	0.6%	N/A
Niger	16.2%	47,6%	11.7	9%

[SEforALL Africa Hub \(se4all-africa.org\)](https://data.worldbank.org/indicator/EG.ELC.ACCS.RU.ZS?locations=ZG) and <https://data.worldbank.org/indicator/EG.ELC.ACCS.RU.ZS?locations=ZG>

The average electrification rate in the program’s countries is among the lowest in the world. The rural areas of these countries have the lowest data: from 0.6% for Mauritania to 25.4% for Mali. Besides, access to clean fuels and technologies for cooking and heating is very anecdotal. We can note a sharp rural urban divide, with urban access rates reaching 88% while rural areas still mostly not electrified.

According to the AfDB's gender profiles, in the program’s countries, more than 60 million people do not have access to electricity, including at least 30 million women and girls, the energy balance shows that biomass (firewood and charcoal) is widely used in rural areas. Solar energy, which is poorly used in urban areas, remains a valuable source in rural areas, although torches remain the main source of lighting in rural areas and wood fuel is used almost singularly.

Governments have ambitious targets such as achieving nearly 95% electricity access rates by 2030 and to target of 50% Renewable Energy in the electric mix by 2030 (without biomass) in Burkina, or by setting a 87% access target and 100% for clean cooking solution for Mali. As for Niger, the measures in the energy sector in Niger reach universal access to modern energy services in urban areas and 30% in rural areas by 2030, both for electricity and clean cooking.

These are ambitious targets to get out of the energy crisis. Indeed, the national utilities are facing challenges for the inadequacy of its transmission and distribution network, its commercial performance and financial equilibrium. The network is often obsolete and does not cover enough surface.

Women in the energy sector

There are no updated data available on women in the energy sector in the G5 Sahel countries so far. However, the challenges met by a majority of women in the energy area in the African continent have certain similarities: (i) gender-specific problems in relation to roles in energy production and use; (ii) women and men have different energy needs linked to their gender roles; (iii) women and girls bear the main burden of biomass collection; (iv) women are poorer than men (both in resources and time); and (v) women are generally disadvantaged in terms of ownership and access to land, natural resources, credit, information and decision-making, at all levels.

Therefore energy poverty on the continent is gendered. Indeed, there are different gender-defined roles in energy production, distribution and use in households, communities and the market. Therefore, women and men experience energy poverty differently. Women and girls are forced to travel long distances to collect fuelwood or water and to carry heavy loads. Additionally, the cooking takes place in poorly ventilated rooms. In rural and peri-urban areas, women and girls are mainly responsible for procuring and using cooking fuels; they are disproportionately affected by the negative effects of limited access to clean and modern forms of energy. Some of the challenges faced by the majority of African women and girls include: (i) time poverty – time that could be used for educational or productive ventures; (ii) adverse health effects – exposure to respiratory diseases (as a result of indoor air pollution from cooking with traditional biomass); and (iii) safety issues encountered while gathering fuelwood. Rural women and girls are especially affected as the majority of energy is derived from traditional biomass fuels such as wood, charcoal and agricultural waste.

Lack of access to energy sources for lighting, heating, cooking, transport and economic production inhibits the productivity of men and women, and society at large. Yet women – as both consumers and suppliers – remain invisible in the energy sector.

In designing energy projects, it is crucial to take into account the realities of the differences in needs, constraints and opportunities between women and men in relation to energy infrastructure and the development of services. Renewable energy solutions such as solar have the great potential to aid in the development of women-owned small-scale enterprises. That is why the gender action plan will focus on tailored activities to improve the capacity and enabling the environment for IPPs to support women inclusion especially through gender-responsive TA for LFIs or local funds by providing trainings to women and men staff of local banks and financial institutions by enhancing their ability to: i) be aware of credit lines dedicated to PUE; ii) appraise and lend to women and men including FHHs for energy access and for investing in productive use equipment; iii) creation of gender-responsive and RE appraisal toolkits; (vi) standardized gender-responsive loan document templates; and (vii) design financial products to address the traditional barriers for women and women owned businesses.

These activities must act in synergy with others dedicated to develop gender-responsive regulatory frameworks, establish a national gender-responsive energy policy and a gender action plan within the Ministry of Energy to be used within the national electricity companies and utilities that include grievance mechanisms, include incentives within the national gender-responsive energy policy to the private energy companies meeting gender criteria and these incentives could also be indexed to their level of commitment, in the national energy policy. Furthermore, activities aiming at supporting IPPs to establish and use gender-responsive tenders and procurement process will be included as well as marketing activities for private sector stakeholders. See more details in the gender action plan below the assessment.

Education, science and technology

We can note in the UNDP Human Development Report that 3 countries of the program out of 6 have more than 50% of literacy rates. Although a very large proportion of the population suffers from the

lack of literacy, women are much more affected than men by this deficiency. It should also be noted that the literacy and secondary schooling rate is an average and that there are substantial gaps between urban and rural areas where the majority of the population does not have access to education despite the presence of schools. In fact, under-trained and underpaid teachers must support themselves by working outside. While the situation of women is absolutely critical to the number of years spent studying, that of men is hardly more satisfactory. Training, however, is a necessary corollary to the prospect of improving living conditions and economic emancipation in an arid territory that requires innovation and certain agricultural techniques and equipment.

Table 3: Literacy and population with secondary education and years of schooling both disaggregated by sex

Country	Literacy rate (% of adults 15 and above)	Population with at least some secondary education (% ages 25 and older) in 2018		Mean years of schooling, (years) data from 2019	
		Female	Male	Female	Male
Burkina Faso	41.2% (2018)	6.1%	12.3%	1.1	2.3
Chad	22.3% (2016)	1.7%	10.5%	1.3	3.8
Mali	35.5% (2018)	7.3%	16.4%	1.7	3
Mauritania	53.5% (2017)	12.7%	25%	3.8	5.6
Niger	30.6% (2012)	4.7%	9%	1.4	2.8

According to the gender profiles of the program's countries, the comparison of the different faculties shows the low presence of girls in Science and Technology. It seems that girls have a noticeable interest in the humanities and social sciences (on average 39%), compared to economic and legal studies (22%) and pure and technical sciences (12%).

Health

Access to health care between urban and rural areas in the program's countries, linked to unequal distribution of health workers and difficult access to health centres. Moreover, as can be seen with data indicating high maternal mortality, mobility constraints mainly affect women. In reproductive health, fertility remains high and early fertility is a public health problem. There is evidence that there is a strong link between educational attainment and fertility rates. Women without education have on average a higher fertility rate than others: 7.0 children compared to 6.3 for women with primary education and 3.8 children for women with secondary or higher education. With infant mortality declining, the program's countries are experiencing a high growth rate that is akin to doubling the population every 24 years.

Table 4: Maternal mortality ratio, adolescent birth rates, and gender-disaggregated lifespan (2019)⁶

Country	Maternal mortality ratio (deaths per 100,000 live births)	Adolescent birth rate (births per 1,000 women ages 15-19)	Life expectancy at birth (years)	
			Female	Male
Burkina Faso	320	104.3	62.3	60.7
Chad	1140	161.1	55.7	52.8
Mali	562	169.1	60.1	58.5
Mauritania	766	71	66.5	63.3
Niger	509	186.5	63.6	61.3

Political Participation & Decision Making

At the international level, all participating countries ratified or have acceded to the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). The programme will further support the Sustainable Development Goal 5 "achieve gender equality and empower all women and girls". All participating countries are committed to strengthening gender equality. Each country has developed its own institutions, as well as targets, strategies and goals for enhancing gender equality within their constitutions, national development plans, strategies and sector-policies except Mauritania. If all the G5 Sahel countries mention gender in their legal and political documents, in fact, women have very little influence in the home as well as in institutions.

⁶ [Human Development Reports \(undp.org\)](http://undp.org)

The issue of gender in governance concerns both the low representation of women in the public sphere and the low level of accountability that women have access to in the decision-making process. Thus, there is a numerical superiority of men in positions of responsibility in public services, in the institutions of the Republic and on the political scene. There are on average 12% women in the National Assembly and 18% of women in representation at the local level (between 12.7% for Burkina Faso and 31.4% in Mauritania). The judicial system is also largely male-dominated.

Work, employment and vulnerability

In the program's countries, about 75% of the population lives in rural areas. The main economic activities are thus mainly related to agriculture (up to 75.1% in Niger and 76% in Chad), except in Burkina Faso (25.2%), the most advanced country in terms of gender equality, where more people are working in services (41.1%). Men hold more formal jobs than women, and among these formal jobs they hold more senior positions, particularly in the public service, where they occupy an average of 85% of the Class A workforce according to the gender country profiles of the AfDB.

Self-employment is the main economic activity in rural areas, occupying an average of 95% of rural workers, 51.2% of men and 48.7% of women. It can be inferred from this double observation that there are highly feminized industries where women are employed in the vast majority in the informal sector with a very low level of qualifications. This means that women most work in sectors where there is little job security and stability, and in job positions lower level, with no prospect of evolution over time, and hence without any possible income improvement.

Table 5: Employment in agriculture and services, labor force participation rate disaggregated by sex, unemployment rate and women rate with account at financial institution or with mobile money-service provider

Country	Employment rate in agriculture (%)	Employment rate in services (%)	Labour force participation rate (% ages 15 and older)		Women rate with account at financial institution or with mobile money-service provider (female older than 15) %
			Female	Male	
Burkina Faso	25.2%	41.1%	58.3%	74.8%	34.5%
Chad	76.6%	21.3%	63.9%	77.5%	14.8%
Mali	62.6%	29.8%	61.2%	80.6%	25.7%
Mauritania	51.3%	35.8%	28.9%	63.1%	15.5%
Niger	75.1%	17.7%	60.6%	83.7%	10.9%

[Human Development Reports \(undp.org\)](https://www.undp.org/)

While women mostly work as entrepreneurs, we can notice that they have few access to financial services, between about 10% in Niger up to 34.5% in Burkina Faso. Therefore, women have difficulties to raise funds to invest and grow economically. With the migrations and global insecurity in the Sahel countries, the self-help systems are working less and less. Being able to use local institutions that would require lean guarantees would be necessary to improve women economic empowerment. There is room for improvement in the labor force participation rate for women with only 28.9% of women involved in the workforce in Mauritania.

Here again, the assessment shows the importance to enabling the environment for the private sector as well as for women workers. In the context of this program, this can be reflected by creating incentives of which some focused on gender mainstreaming for the solar energy companies and by ensuring that the companies are aware of them. The environment also needs to be improved for women so that they have a better access to finance and it can be used to benefit from energy access. Access to energy and finance will contribute to economically empowering women.

Energy access for women and women headed-households could be facilitated by social energy tariffs as well, and by raising awareness about this measure. Access to jobs for women in the energy sector would benefit from match-making events to further leverage private investments and create awareness for

women's participation in the energy sector as well as from TA for utilities to mainstream gender considerations across their activities and particularly with a focus on workforce development and employment.

Agriculture

The gender profiles of the African Development Bank state that in the agricultural sector, women are present throughout the agricultural chain, but they do not have the means to increase their production and productivity (lack of access, control and ownership of land and means of production). They usually take care of small-breed farming, and all processing activities. This role of full-fledged producers is not always valued or accounted for. Women invest mainly in food and vegetable crops for the family's livelihood. The challenge of food security cannot be envisaged without seeking to improve their contribution to food production.

According to UNDP, women make up more than 40% of the agricultural workforce in the program's countries and play a key role in strengthening household food security. However, in the Lake Chad region and in the north of the country, women farmers have significantly less access to land, information, financing and agricultural inputs. This makes them more vulnerable to climate shocks and crises in the region. To ensure their survival and that of their families, women come together in associations to strengthen their productive capacity and access land and financing, thus contributing to the fight against hunger in the region, but also to their empowerment.

Gender-based violence

In the program's countries, gender-based violence has long been seen as a taboo subject and some of them are often tolerated or even "accepted" by different communities. They are multiple and come in different forms: physical, sexual, psychological and economic. They are also found in all walks of life: within the family, at school, in detention centres and reception centres and everywhere.

The main violence manifests itself in the following facts: FGM, gavage, touching and sexual harassment, psychological pressure, domestic violence (35.5% in Mauritania), rape and incitement to prostitution, deprivation of rights. This list is non-exhaustive.

However, effective action has been taken such as: awareness/information with the involvement of religious guides against FGM and gavage, the creation and start-up of NGO-led listening centres, the establishment of technical cells to combat all forms of violence, the establishment of adoption and extension of various pieces of legislation. National statistics in the G5 Sahel countries for VGGS are almost non-existent. Those that exist are those identified episodically by NGOs (only exclusively concerned with capitals where they exist) that manage the listening centres or those that have been produced, with the support of international organizations in the investigation of all forms of violence against women and girls. From these surveys, it appears that the most widespread violence is psychological (64.3%), and sexual (14.3%). It should be noted that domestic violence is not recognized in communities as a type of violence against women.

Finally, grievance mechanisms have to be included in the Corporate Social Responsibility of the solar companies and in the awareness raising activities of the gender action plan and in the gender-responsive energy policies that will be set up.

Conclusion and recommendations

The G5 Sahel countries have made progress in integrating the gender dimension at the political, strategic and legal levels. However, the operationalization of this process still seems to be based on the weakness of the existing institutional framework, the lack of coordination and synergy between the different institutional players, the multiplicity and the opacity of the sources of positive law and its weak application, especially on women's rights issues.

At the sectoral level, despite progress, large deficits still persist, especially in terms of gender disaggregated statistics and their consideration in development actions. Also, socio-cultural reluctance continues to view women as an inferior being who cannot become the equal of man. To this must be

added the slow balance between the demands of modern life in favour of respect for human rights and the strong oppressive patriarchal traditions towards women.

To remove these burdens in the energy sector within the Desert to Power Facility program phase I, specific recommendations drawn from this assessment converge on starting by the creation of an enabling environment for the integration of women in the energy sector. Therefore, the following main actions are proposed:

- **Strengthening gender-responsive capacity of institutional stakeholders (utilities, transmission system operators, the ministries in charge of energy, and energy regulators) on gender-responsive procurement of IPP projects;**
- **Elaborating and operationalizing gender-responsive national energy policies and energy regulatory frameworks to mobilize more private sector investments in IPPs in the G5 Sahel countries;**
- **Completing gender-responsive technical studies for identifying solar PV projects to enhance gender-responsive solar integration into the grids across the G5 Sahel countries.**

Gender activities under the Desert to Power G5 Sahel Facility program:

The gender action plan incorporates gender activities drawn from the activities of the overall logical framework of the program. The gender action plan ensures to capture sex-disaggregated data through sex-disaggregated indicators and targets. It also includes female-headed households and poor-headed households who are likely to benefit from this program.

The gender aspects of the Desert to Power G5 Sahel Facility aim to address and reduce gender inequality. Indeed, in this program, gender is understood as an economic catalyzer able to allow a faster return on investment. Based on economic studies, considering women as consumers, producers, and agents of change, the DtP Facility program aims to create a virtuous cycle where the whole communities will benefit from women economic empowerment. To contribute to reduce gender inequalities and to strengthen women economic empowerment, the gender action plan will focus on the component 3 of the program.

Outcome 3: Technical Assistance

Output 3.1: Improve capacity and enabling environment for IPPs

Activity 3.1.1: Build capacity of institutional stakeholders in the operation of integrated energy systems with higher shares of variable renewables. Increased share of solar in national grids and rural decentralized systems (700MW additional capacity)

- ❖ Improve capacity and enabling environment for IPPs through Institutional stakeholders' capacity built to transfer international best practice in gender-responsive procurement of competitive IPPs projects, PPA negotiation, operation and maintenance of renewable energy systems into the Sahel context
- ❖ Gender-responsive TA for LFIs or local funds by providing trainings to women and men staff of local banks and financial institutions by enhancing their ability to: i) be aware of credit lines dedicated to PUE; ii) appraise and lend to women and men including FHHs for energy access and for investing in productive use equipment; iii) creation of gender-responsive and RE appraisal toolkits; (vi) standardized gender-responsive loan document templates
- ❖ TA for utilities to mainstream gender considerations across their activities and particularly with a focus on workforce development and employment
- ❖ Raise awareness of gender responsive energy policy amongst solar energy companies

- ❖ Awareness raising among the vulnerable population of the localities about the social energy tariffs

Activity 3.1.2: Revision of regulatory texts based on recommendation of the Electricity Regulation Index to attract private sector investment in the electricity sector in the Sahel countries, gender-responsiveness, operationalization of renewable energy actions.

- ❖ Develop gender-responsive regulatory frameworks
 - Establishing a national gender-responsive energy policy and a gender action plan within the Ministry of Energy to be used within the national electricity companies and utilities that include grievance mechanisms
 - Include incentives within the national gender-responsive energy policy to the private energy companies meeting gender criteria and these incentives could also be indexed to their level of commitment, in the national energy policies.

Output 3.2: Incentivize additional private sector investment

Activity 3.2.1. Standardization and development of standards for solar integration

- ❖ Support IPPs to establish and use gender-responsive tenders and procurement process
- ❖ Solar energy companies develop affordable tariffs optimize solar energy available, especially targeting vulnerable population as poor HHs, women and FHHs

Activity 3.2.2. Match-making events to further leverage private investments and create awareness for women's participation in the energy sector

- ❖ Marketing activities for women with degrees in energy or working in the energy sector
The aim is to disseminate good practices and approaches for women's inclusion in the sector among the private solar energy companies
- ❖ Marketing activities for private sector stakeholders
The goal is to inform them about the financial benefits to implement a gender-responsive CSR policy and about government incentives

Program management, monitoring and evaluation

- ❖ The project implementation unit of each country includes a gender expert to mainstream the gender issues throughout all the phases of the program
- ❖ The gender expert of each PIU elaborates a country level gender assessment as well as a National Level Gender Action Plan based on the program level gender assessment and gender action
- ❖ Program management team includes gender expert to monitor and evaluate the implementation of the GAP and support LFIs and solar energy companies to implement gender-related components of the program.
- ❖ Regular reporting on GAP progress according to program timeline and monitoring protocol

The Desert to Power G5 Sahel Facility program phase 1 will be executed by the Accredited Entity that will then split the responsibilities between the African Development Bank, the African Guarantee Fund, and the countries.